

# **CLAIM AMENDMENTS**

## **Claim Amendment Summary**

### **Claims pending**

- Before this Amendment: Claims 1-74.
- After this Amendment: Claims 1-74

**Non-Elected, Canceled, or Withdrawn claims:** None

**Amended claims:** 1-34, 40, 45, 48, 59-61, 63, 64, 69, and 72

**New claims:** None

---

## **Claims:**

1. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium encoded with ~~comprising processor-executable instructions configured for that, when executed, direct a computer to perform a method, comprising:~~

requesting media content at an accelerated rate from a source, the accelerated rate being a rate that exceeds a normal playback rate;

receiving a media stream at the accelerated rate, wherein the media stream is an uninterrupted data stream of the media content that has no intentionally dropped data; and

rendering all content in the media stream at the accelerated rate.

2. (Currently Amended) A ~~processor-readable~~ computer-readable storage medium as recited in claim 1, wherein the media stream comprises a video stream and an audio stream, the rendering further comprising:

processing the video stream and the audio stream through a playback filter graph at the accelerated rate; and

implementing a pitch adjustment algorithm within the playback filter graph to process the audio stream.

3. (Currently Amended) A ~~processor-readable~~ computer-readable storage medium as recited in claim 2, wherein the media stream further comprises a non-video/non-audio data stream synchronized to the video stream and the audio stream, the rendering further comprising processing the non-video/non-audio data stream at synchronized locations within the video stream and the audio stream.

4. (Currently Amended) A ~~processor-readable~~ computer-readable storage medium as recited in claim 3, wherein the non-video/non-audio data stream includes data selected from the group comprising:

script commands;

metadata; and

captions.

5. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 1, wherein the method further comprises ~~comprising~~ further ~~processor-executable instructions configured for:~~

receiving a degraded media stream at a reduced rate, wherein the degraded media stream includes a subset of data from the media stream; and

rendering the degraded media stream at the reduced rate.

6. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 5, wherein the degraded media stream comprises a video stream that has dropped video frames and wherein an audio stream of the media stream has been dropped.

7. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 1, wherein the source is selected from the group comprising:

a streaming media server; and

a local storage medium.

8. **(Currently Amended)** A computer comprising the ~~processor-readable~~ computer-readable storage medium as recited in claim 1.

9. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium encoded with ~~comprising processor-executable instructions configured~~ for that, when executed, direct a computing system to perform a method comprising:

receiving previously stored, non-live media content via a media stream;

determining a source of the media stream;

determining if the source can deliver the media stream at an accelerated rate; and

enabling and disabling variable play speed controls depending on the source and on whether the source can deliver the media stream at the accelerated rate.

10. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 9, wherein the enabling and disabling comprises enabling the variable play speed controls such that play speeds cannot exceed ~~the a~~ maximum accelerated rate at which the source can deliver the media stream without intentionally dropping portions of the media content.

11. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 9, wherein the determining if the source can deliver the media stream at an accelerated rate comprises determining an average data delivery rate from the source.

12. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 9, ~~comprising further processor-executable instructions configured for~~ wherein the method further comprises enabling the variable play speed controls if the source is a streaming media server capable of delivering the media stream at the accelerated rate.

13. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 9, ~~comprising further processor-executable instructions configured for~~ wherein the method further comprises:

disabling variable play speed controls in an accelerated playback range if the source is a streaming media server that is not capable of delivering the media stream at the accelerated rate; and

enabling variable play speed controls in a decelerated playback range.

14. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 9, ~~comprising further processor-executable instructions configured for~~ wherein the method further comprises disabling the variable play speed controls if the source is a Web server delivering the media stream as a progressively downloaded file.

15. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 14, ~~comprising further processor-executable instructions configured for~~ wherein the method further comprises enabling the variable play speed controls after the media stream is completely downloaded from the Web server.

16. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 9, ~~comprising further processor-executable instructions configured for~~ wherein the method further comprises enabling the variable play speed controls if the source is a local media source.

17. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 9, ~~comprising further processor-executable instructions configured for~~ wherein the method further comprises playing back the media stream at the accelerated rate, wherein the playing back includes rendering all content within the media stream.

18. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 9, wherein the enabling and the disabling comprise altering graphical representations of the variable play speed controls on a graphical user interface.

19. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 9, wherein the variable play speed controls include:

a play speed control configured to vary a playback rate of the media stream between a rate that is less than a real time rate and a rate that greater than the real time rate;

a fast forward control configured to increase the playback rate of the media stream to a rate that exceeds the real time rate;

a rewind control configured to decrease the playback rate of the media stream to a negative rate;

a seek control configured to access a particular playback location within the media stream;

a next frame control configured to step the playback rate of the media stream forward one video frame at a time; and

a previous frame control configured to step the playback rate of the media stream backward one video frame at a time.

20. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 9, wherein the source is selected from a group comprising:

local media;

a streaming media server; and

a Web server.

21. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 9, wherein the media stream comprises data selected from the group comprising:

audio data;  
video data;  
script commands;  
text captions; and  
metadata.

22. **(Currently Amended)** A computer comprising the ~~processor-readable~~ computer-readable storage medium as recited in claim 9.

23. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium encoded with ~~comprising processor-executable instructions configured for that, when executed, direct a computing system to perform a method comprising:~~

sending a request to a media source to stream media content from a media file at a non-real-time rate;

determining if the media source and a network link can support the non-real-time rate without intentionally dropping data from the media content; and

if the media source and a network link can support the non-real-time rate, receiving and playing back the media content at the non-real-time rate.



**24. (Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 23, wherein the non-real-time rate is a rate selected from the group comprising:

an accelerated rate; and

a decelerated rate.

**25. (Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 23, wherein the non-real-time rate is ~~the~~ an accelerated rate, ~~the processor-readable medium comprising further processor-executable instructions configured for~~ and wherein the method further comprises:

determining that the media source and/or the network link cannot support the accelerated rate without intentionally dropping data from the media content; and

sending a request to the media source to drop data from the media content and to stream remaining media content from the media file.

**26. (Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 25, wherein the remaining media content is streamed from the media source within a period of time equal to a period of time that would be needed to stream all the media content from the media source at the accelerated rate.

**27. (Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 25, wherein data dropped from the media content is selected from the group comprising:

- an audio data stream;
- video frames from a video data stream; and
- a non-video/audio data stream.

**28. (Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 23, wherein the non-real-time rate is ~~the~~ an accelerated rate, ~~the processor-readable medium comprising further processor-executable instructions configured for and wherein the method further comprises:~~

determining that the media source and/or the network link cannot support the accelerated rate without intentionally dropping data from the media content; and

in response to determining that the media source and/or the network link cannot support the accelerated rate without intentionally dropping data from the media content, sending a request to the media source to stream the media content stream from the media file at a normal real-time rate.

**29. (Currently Amended)** A computer comprising the ~~processor-readable-computer-readable~~ storage medium as recited in claim 23.

30. (Currently Amended) A ~~processor-readable-computer-readable~~  
~~storage medium encoded with comprising processor-executable-instructions-configured~~  
~~for that, when executed, direct a computing system to perform a method comprising:~~

streaming a media stream to a client at a real time rate;

receiving a request from the client to deliver the media stream at an  
accelerated rate; and

delivering the media stream to the client at the accelerated rate, wherein no  
data is intentionally dropped from the media stream to achieve the accelerated rate.

31. (Currently Amended) A ~~processor-readable~~ computer-readable  
storage medium as recited in claim 30, ~~comprising further processor-executable~~  
~~instructions-configured for wherein the method further comprises:~~

determining that a network link cannot support the accelerated rate without  
dropping data from the media stream; and

delivering the media stream to the client at a reduced rate that is less than  
the accelerated rate without dropping data from the media stream.

32. **(Currently Amended)** A ~~processor-readable~~ computer-readable storage medium as recited in claim 30, ~~comprising further processor-executable instructions configured for~~ wherein the method further comprises:

determining that a network link cannot support the accelerated rate;

delivering the media stream to the client at a reduced rate that is less than the accelerated rate; and

while delivering the media stream to the client at the reduced rate, dropping data from the media stream.

33. **(Currently Amended)** A streaming media server comprising the ~~processor-readable~~ computer-readable storage medium as recited in claim 30.

34. **(Currently Amended)** A media player comprising variable play speed controls configured to vary playback speed of a media stream depending on a source of the media stream and on whether the source can deliver the media stream at a requested rate, without intentionally dropping data from the media stream to enable delivering the media stream at the requested rate.

**35. (Original)** A media player as recited in claim 34, further comprising a playback module configured to enable or disable the variable play speed controls depending on the source and on whether the source can deliver the media stream at the accelerated rate, the playback module additionally configured to determine the source and whether the source can deliver the media stream at a requested rate.

**36. (Original)** A media player as recited in claim 34, further comprising a graphical user interface (GUI) module configured to support a GUI that presents the variable play speed controls to a user and enables the user to activate the variable play speed controls.

**37. (Original)** A media player as recited in claim 34, further comprising an application programming interface configured to expose the variable play speed controls to programmatic control of a custom application program.

**38. (Original)** A media player as recited in claim 34, wherein the variable play speed controls are selected from the group comprising:

a play speed control configured to vary a playback rate of the media stream between a rate that is less than a real time rate and a rate that greater than the real time rate;

a fast forward control configured to increase the playback rate of the media stream to a rate that exceeds the real time rate;

a rewind control configured to decrease the playback rate of the media stream to a negative rate;

a seek control configured to access a particular playback location within the media stream;

a next frame control configured to step the playback rate of the media stream forward one video frame at a time; and

a previous frame control configured to step the playback rate of the media stream backward one video frame at a time.

**39. (Original)** A computer comprising the media player as recited in claim 34.

40. **(Currently Amended)** A media player comprising ~~controls for varying playback speed of a media stream, the controls comprising:~~

controls for varying playback speed of a media stream, the controls comprising:

a play speed control configured to vary a playback rate of the media stream between a rate that is less than a real time rate and a rate that is greater than the real time rate;

a fast forward control configured to increase the playback rate of the media stream to a rate that exceeds the real time rate;

a rewind control configured to decrease the playback rate of the media stream to a negative rate;

a seek control configured to access a particular playback location within the media stream;

a next frame control configured to step the playback rate of the media stream forward one video frame at a time; and

a previous frame control configured to step the playback rate of the media stream backward one video frame at a time; and

a playback module configured to enable and disable the controls to reflect a current play speed control capability, the current play speed control capability determined by the playback module according to a source of the media stream and whether the source can deliver the media stream at an accelerated rate without intentionally dropping data from the media stream.

**41. (Original)** A media player as recited in claim 40, further comprising a playback module configured to enable and disable the controls to reflect a current play speed control capability, the current play speed control capability determined by the playback module according to a source of the media stream and whether the source can deliver the media stream at an accelerated rate.

**42. (Original)** A media player as recited in claim 40, further comprising a graphical user interface (GUI) module configured to support a GUI graphical that presents the controls to a user and enables the user to activate the controls.

**43. (Original)** A media player as recited in claim 40, further comprising an application programming interface configured to expose the controls to programmatic control of a custom application program.

**44. (Original)** A computer comprising the media player as recited in claim 40.



**45. (Currently Amended)** A computer comprising:

means for requesting media content at an accelerated rate from a source;

means for receiving a media data stream from the source at the accelerated rate, wherein the media data stream has no intentionally dropped data of the media content; and

means for rendering all content in the media data stream at the accelerated rate.

**46. (Original)** A computer as recited in claim 45, wherein the media

data stream comprises a video data stream, an audio data stream, and a non-video/audio data stream synchronized to the video data stream, the means for rendering further comprising:

means for processing the video data stream and the audio data stream through a playback filter graph at the accelerated rate;

means for implementing a pitch adjustment algorithm within the playback filter graph to process the audio data stream; and

means for processing the non-video/audio data stream at synchronized locations within the video data stream.

47. **(Original)** A computer as recited in claim 45, further comprising:  
means for receiving a degraded media data stream at a reduced rate,  
wherein the degraded media data stream includes a subset of data from the media data  
stream; and  
means for rendering the degraded media data stream at the reduced rate.

48. **(Currently Amended)** A computer comprising:  
means for receiving a media stream;  
means for determining a source of the media stream;  
means for determining if the source can deliver the media stream at an  
accelerated rate without intentionally dropping data from the media stream; and  
means for enabling and disabling variable play speed controls depending on  
the source and on whether the source can deliver the media stream at the accelerated rate.

49. **(Original)** A computer as recited in claim 48, wherein the means  
for enabling and disabling comprises means for enabling the variable play speed controls  
such that play speeds cannot exceed the accelerated rate at which the source can deliver  
the media stream.

50. **(Original)** A computer as recited in claim 48, wherein the means  
for determining if the source can deliver the media stream at an accelerated rate  
comprises means for determining an average data delivery rate from the source.

**51. (Original)** A computer as recited in claim 48, further comprising means for enabling the variable play speed controls if the source is a streaming media server capable of delivering the media stream at the accelerated rate.

**52. (Original)** A computer as recited in claim 48, further comprising:  
means for disabling variable play speed controls in an accelerated playback range if the source is a streaming media server that is not capable of delivering the media stream at the accelerated rate; and  
means for enabling variable play speed controls in a decelerated playback range.

**53. (Original)** A computer as recited in claim 48, further comprising means for disabling the variable play speed controls if the source is a Web server delivering the media stream as a progressively downloaded file.

**54. (Original)** A computer as recited in claim 53, further comprising means for enabling the variable play speed controls after the media stream is completely downloaded from the Web server.

**55. (Original)** A computer as recited in claim 48, further comprising means for enabling the variable play speed controls if the source is a local media source.

**56. (Original)** A computer as recited in claim 48, further comprising means for playing back the media stream at the accelerated rate, wherein the playing back includes rendering all content within the media stream.

**57. (Original)** A computer as recited in claim 48, further comprising means for altering a graphical user interface having representations of the variable play speed controls to reflect the enabling and the disabling of the variable play speed controls.

**58. (Original)** A computer as recited in claim 48, wherein the variable play speed controls include:

a play speed control configured to vary a playback rate of the media stream between a rate that is less than a real time rate and a rate that greater than the real time rate;

a fast forward control configured to increase the playback rate of the media stream to a rate that exceeds the real time rate;

a rewind control configured to decrease the playback rate of the media stream to a negative rate;

a seek control configured to access a particular playback location within the media stream;

a next frame control configured to step the playback rate of the media stream forward one video frame at a time; and

a previous frame control configured to step the playback rate of the media stream backward one video frame at a time.

**59. (Currently Amended)** A computer comprising:

means for sending a request to a media source to stream media content from a media file at a non-real-time rate;

means for determining if the media source and a network link can support the non-real-time rate without intentionally dropping data from the media content; and

means for receiving and playing back the media content at the non-real-time rate if the media source and a network link can support the non-real-time rate without intentionally dropping data from the media content.

**60. (Currently Amended)** A computer as recited in claim 59, wherein the non-real-time rate is a rate selected from the group comprising:

an accelerated rate; and

a decelerated rate.

**61. (Currently Amended)** A computer as recited in claim 59, wherein the non-real-time rate is the an accelerated rate, the computer further comprising:

means for determining that the media source and/or the network link cannot support the accelerated rate without dropping data from the media content; and

means for sending a request to the media source to drop data from the media content and to stream remaining media content from the media file.

**62. (Original)** A computer as recited in claim 61, wherein data dropped from the media content is selected from the group comprising:

an audio data stream;

video frames from a video data stream; and

a non-video/audio data stream.

**63. (Currently Amended)** A computer as recited in claim 59, wherein the non-real-time rate is ~~the~~ an accelerated rate, the computer further comprising:

means for determining that the media source and/or the network link cannot support the accelerated rate without intentionally dropping data from the media content;  
and

means for sending a request to the media source to stream the media content stream from the media file at a normal real-time rate.

**64. (Currently Amended)** A streaming media server comprising:

means for streaming a media stream to a client at a real time rate;

means for receiving a request from the client to deliver the media stream at an accelerated rate; and

means for delivering the media stream to the client at the accelerated rate, without intentionally dropping data to achieve the accelerated rate.

**65. (Original)** A streaming media server as recited in claim 64,

further comprising:

means for determining that a network link cannot support the accelerated rate; and

means for delivering the media stream to the client at a reduced rate that is less than the accelerated rate.

**66. (Original)** A streaming media server as recited in claim 64,

further comprising:

means for determining that a network link cannot support the accelerated rate;

means for delivering the media stream to the client at a reduced rate that is less than the accelerated rate; and

means for dropping data from the media stream while delivering the media stream to the client at the reduced rate.

67. **(Original)** A streaming media server comprising a variable speed streaming module configured to receive a request to stream media content at an accelerated rate and to stream the media content at the accelerated rate without dropping any data from the media content, the accelerated rate being a rate that exceeds a real time playback rate of the media content.

68. **(Original)** A streaming media server as recited in claim 67, wherein the variable speed streaming module is further configured to control variable play speed controls of a media player executing on a client computer.

69. **(Currently Amended)** A method comprising:  
rendering a stream of media at a real time playback rate;  
receiving a request to render the stream of media at an accelerated rate;  
sending a request to have the stream of media delivered at the accelerated rate;  
  
receiving the stream of media at the accelerated rate, wherein the stream of media that is received at the accelerated rate has no intentionally dropped data; and  
rendering the stream of media at the accelerated rate.



**70. (Original)** A method as recited in claim 69, wherein the media stream comprises a video stream and an audio stream and wherein rendering comprises:

- processing the video stream and the audio stream through a playback filter graph at the accelerated rate; and
- implementing a pitch adjustment algorithm within the playback filter graph to process the audio stream.

**71. (Original)** A method as recited in claim 70, wherein the media stream further comprises a non-video/non-audio data stream synchronized to the video stream and the audio stream and wherein rendering further comprises processing the non-video/non-audio data stream at synchronized locations within the video stream and the audio stream.

**72. (Original)** A method comprising:

- receiving a media stream from a source;
- determining the source of the media stream;
- determining if the source can deliver the media stream at an accelerated rate without intentionally dropping data from the media stream; and
- enabling or disabling variable play speed controls depending on the source and on whether the source can deliver the media stream at the accelerated rate without intentionally dropping data from the media stream.

**73. (Original)** A method as recited in claim 72, further comprising:  
enabling the variable play speed controls if the source is a streaming media server capable of delivering the media stream at the accelerated rate; and  
disabling the variable play speed controls if the source is a streaming media server that is not capable of delivering the media stream at the accelerated rate.

**74. (Original)** A method as recited in claim 72, wherein the source is a Web server delivering the media stream as a progressively downloaded file, the method further comprising:

disabling the variable play speed controls while the progressively downloaded file is being delivered; and

enabling the variable play speed controls after the progressively downloaded is completely downloaded.